

Remarks

In the Office action mailed October 18, 2004, claims 1 through 29 are rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and claim subject matter which applicant regards as the invention. For example, the phrase "or the like" in the claims is said to render the claims indefinite, and the phrase "such as" is also said to render the claims indefinite. The use of these terms has been corrected in the claims, and the claims are now believed to be in full accordance with 35 USC 112.

In the Office action claims 1 and 17 are rejected under 35 USC 102(b) as being anticipated by Vieira (U.S. 6,501,906). Vieira is said to disclose the claimed invention, including a heating body formed from a synthetic heat conducting material (ceramic) carried within the housing, and a heating element molded within the heating body in heat-transfer relationship with the heating body, along with other noted features said to be found in Vieira.

In the Office action claims 2-3, 6-14, 18-19, 22-25 are rejected under 35 USC 103(a) as being unpatentable over Vieira in view of Millan (U.S. 6,594,445). Vieira is said to disclose the claimed invention except the use of a polyamide heating body. Millan is said to disclose a polyamide heating body for a wick type vaporizer. The rejection states it would have been obvious to one of ordinary skill in the art at the time the invention was made, in view of Millan, to modify the device of Vieira to make the heating body from a polyamide in order to avoid using ceramics which require separate potting compounds to seat the heating element.

In the Office action claims 5 and 21 are rejected under 35 USC 103(a) as being

unpatentable over Vieira in view of Millan, as applied to the claims above, and further in view of Eckman (U.S. 5,835,679). The rejection states it would have been obvious to one of ordinary skill in the art at the time the invention was made, in view of Eckman and Millan, to modify the device of Vieira to use fiber reinforced polyamide for strengthening the device.

In the Office action, claims 4, 15, 16, 20 and 26-29 are objected to as being dependent upon a rejected base claim, but are said to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The notice of allowable subject matter is appreciated.

Reconsideration of the rejections made in the Office action is respectfully requested for the reasons set forth below.

Vieira discloses an evaporation device for volatile substances wherein a ceramic heating block is used with a block opening in which a resistance electrical heating element is placed. Afterwards, the heating element is encapsulated in a conductive cement in order to fix the resistance element in the ceramic block. The evaporation device of Vieira is further discussed and distinguished in the background portion of the present application.

Millan shows a plastic molded body 1 of cylindrical shape which has a concentric opening with an actual neck for passing a wick. This plastic molded body has ribs 4 that have flutings 5 for positioning electric resistor elements. In addition to ribs 4, the plastic molded body 1 has projections with cross-channel 7 for positioning and immobilizing the ends of wires 13 of electrical resistance elements 12. The connection of the wires 13 of the resistor elements 12 to the corresponding electrical supply

connectors is made by means of a clip 8. The plastic molded body can be enclosed with a cover. In the present invention, the heating element is not connected to the heating device by means of clips but is molded in the heating body as one piece during the molding process of the plastic heating body. This allows the production of a heating device that is simple and economical in conduction, and which can be automatically produced in a simple way. Furthermore, in the present invention, the heat is transferred to the wick by means of the heating body and not through the "air" as taught by Millan.

There is no teaching in Vieira or Millan to make the ceramic heating block of Vieira of a plastic material. The ceramic heating block of Vieira is not analogous to the plastic body of Millan which, in fact, is merely a housing in which heating elements are positioned around an axial passage. Neither are the heating elements molded within the body.

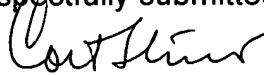
In any event, the prior art references do not teach, alone or in combination, a one piece plastic body in which one or more heating elements is molded, in place, with the plastic body. The plastic heating body may then be positioned adjacent the wick where the heating element transfers heat through the plastic heating body to the wick for evaporating the volatile substances. Applicant was the first to realize the expedients of a molded plastic heating body with heating element molded in place to provide a simple way of heating a volatile substance in an evaporation device.

Claims 1 and 17 have been amended to point out these expedients and are now believed to be in condition for allowance. The dependent claims claiming on claims 1 and 17 are believed to be in condition for allowance for the same reasons and because of the additional limitations contained in the dependent claims. Method claims 26

through 29 have been indicated allowable. Accordingly, all of the claims are now believed to be in condition for allowance. Applicant appreciates the noted allowability of certain original dependent claims.

Favorable action on the claims and passing of the case to issue is respectfully requested in due course of Patent Office business.

Respectfully submitted,



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